Hi Wayne,

I hope you had a peaceful holiday season.

As the new year begins, I want to reiterate my request, one more time, to be provided with the written BPRG assessment/review/report that must have formed the basis for your letter of August 20, 2020, to the Navy entitled "EPA Review of Navy Draft Evaluation of Radiological Remediation Goals for Onsite Buildings-Hunters Point Naval Shipyard Superfund Site." In that letter you state, "We completed our review of the Navy evaluation of radiological building RGs in consultation with EPA Headquarters and with assistance from the U. S. Army Corps of Engineers Radiation Safety Support Team and the Department of Energy's Oak Ridge National Laboratory (ORNL)." Elsewhere you refer to calculations involving EPA's National Superfund Expert and ORNL with a modified version of the BPRG calculator. We would like to see the document(s) containing these analyses/calculations upon which you based your August 20 letter.

Secondly, we would appreciate receiving copies of any response you may have received from the Navy to your August 20 letter and any associated correspondence between EPA and the Navy on the subject.

Third, as to your responses below, a few quick points:

a. I had previously told you that the values we get from the running the BPRG calculator are about two times more protective than the values you cite for the situation that uses the default assumption of contamination above 6 feet. (Compare your table below with ours at page 19 of our report, "Hunters Point Shipyard Cleanup Used Outdated and Grossly Non-Protective Cleanup Standards.") Our table is based on 10^-6 risk, but you will see that at 10^-4 the values are still about twice as protective as the ones you are using. I believe that is because you didn't follow the decision made by the EPA in 2018 that calculations should be based on assuming exposure to hard surfaces alone and the exposure time for hard surfaces must be changed accordingly. (Letter, September 21, 2018, from Lily Lee to Derek Robinson, "EPA Comments on the Draft Fourth Five-Year Review, Hunters Point Naval Shipyard, San Francisco, California, Dated July 9, 2018," pp. 4-5.) And yes, of course, we converted to dpm/ 100 cm^2.

b. The use of 10^-4 levels is inappropriate. We are not in a situation where buildings have all been remediated and a 5-Year review is being conducted thereafter to see if they are still protective. We are in a situation where remediation is to occur and a decision needs to be made as to the cleanup standard to be applied. The standard needs, according to CERCLA, to be as close to 10^-6, the point of departure, as possible, and only fall back the minimum necessary from that and only if the 9 balancing and other criteria have been weighed, in a public process with public input. None of that has occurred here. EPA really needs to be insisting on 10^-6 cleanup levels, in part to provide a margin of safety for future discoveries, given the troubled history to date regarding the botched cleanup at HPNS.

c. There is no basis for EPA doing its BPRG calculations on the basis of weakened inputs to the calculator that *assume* there is no contamination above 6 feet, when there is no evidence that is the case. A protectiveness review must be based on evidence if one is to weaken the inputs.

d. The claim that the Navy will carefully measure above 6 feet to determine if there is contamination is not borne out by the passages of the Navy plan you cite. The Navy is classifying all surfaces above 6 feet as either MARSSIM Class 2, requiring far less rigorous measurements, or as purportedly non-impacted, which will receive no measurements at all. There are simply *assuming* it is unlikely there is

contamination above 6 feet and then doing such minimal measurements it is unlikely they would be able to find it if it is there. Further, the Navy plan is using as its background a potentially impacted building in the middle of the Superfund site, a few feet from structures it concedes are impacted and surrounded by soil that is potentially contaminated and can have been tracked in for years, violating fundamental principles of MARRSIM requiring background be from places that cannot possibly be contaminated. Additionally, it appears that all or the great majority of the measurements are just scans, rather than actual sampling of removable contamination and sending it to a lab for careful measurement with good detection limits. Simply arbitrarily assuming 20% of contamination is removable and then only doing scans, plus the highly questionable background location, and the designation of most of the structures as Class 2 with woefully weak survey coverage, are just a few more signs that the Navy is repeating the kind of troubling steps that led to the Tetra Tech scandal and the need for retesting in the first place.

e. I see no sign that EPA, either in its own calculations or in what it is requiring of the Navy, is summing the risks from the external exposures and the internal exposures. You indicate that for at least four radionuclides, the Navy's Remediation Goals exceed the 1 10^-4 risk level, which the Region has repeatedly in the past insisted on as the upper limit of the risk range. In your email you indicate a risk from fixed contamination alone more than double the 1 x 10^-4 level, even assuming zero contamination above 6 feet. So, if the removable contamination were allowed at 1 x 10^-4, or more than that, the combined risk could readily exceed 3 x 10^-4, about which there is no question of exceeding the acceptable risk range.

I look forward to receiving the documents on which your August 20 letter to the Navy was based, and any subsequent correspondence from and to the Navy about it.

Thanks,

Dan